



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,089	03/31/2004	William Pan	MR1957-868	5663
4586	7590	11/22/2005	EXAMINER	
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043				FULLER, RODNEY EVAN
		ART UNIT		PAPER NUMBER
		2851		

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/813,089	PAN ET AL.
	Examiner	Art Unit
	Rodney E. Fuller	2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 27 October 2005.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3-7 and 9-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3-7 and 9-17 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 28 March 2005 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**RODNEY FULLER**  
**PRIMARY EXAMINER**



#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 28, 2005 has been entered.

***Remarks***

2. In response to applicant's Amendment, dated September 28, 2005, the examiner acknowledges the cancellation of claims 2 and 8. Claims 1, 3-7 and 9-17 are pending.

3. Regarding the 35 U.S.C. 103(a) rejection of claims 1-10, 13 and 15-17 as being unpatentable over Zavarcky, et al. (US 6,476,784) in view of Svardal, et al. (US 6,547,396), the applicant amended claim to include the limitations of "a casing having an upper portion with an undulating contour to define finger receiving positions and a plurality of buttons provided at the finger receiving positions for operation and support of the apparatus by one hand of the user." Further, the applicant makes the argument that the references cited do not disclose the new limitation. The examiner maintains that the newly added limitation would be obvious in light of Von Novak (US 6,822,852) or Barker (US 6,281,883).

4. Additionally, the applicant added the limitation of "a memory unit coupled to the at least one circuit board for storing digitized medical image data." However, Zavarcky discloses the limitation of a memory unit coupled to a circuit board in column 21, lines 61-63. The limitation of storing "medical image data" is intended use and not given patentable weight, since any type of image data could be used in the invention or the prior art cited.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-7, 9, 10, 13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zavarcky, et al. (US 6,476,784) in view of Svardal, et al. (US 6,547,396) and Von Novak (US 6,822,852).

Zavarcky discloses all the structure set forth in the claims except for the newly added limitation "the micro display including (a) a light source, (b) a lens through which light emitted from the light source passes, (c) a reflecting mirror for reflecting the emitted light passing through the lens, (d) a LCOS chip for producing the at least one image using the light from the reflecting mirror, and (e) a convex lens through which the at

least one image from the LCOS chip passes to be viewed by a user." (See Office Action mailed December 14, 2004 for item matching to claims 2-10, 13 and 15-17.)

In other words Zavracky discloses a "light transmissive type" of display while the present invention is directed to a "reflective type" of display. In column 1, lines 24-26, Zavaracky discloses that it is routine to use either transmissive or reflective type displays. Further, the use of a display with the specific limitations of "(a) a light source, (b) a lens through which light emitted from the light source passes, (c) a reflecting mirror for reflecting the emitted light passing through the lens, (d) a LCOS chip for producing the at least one image using the light from the reflecting mirror, and (e) a convex lens through which the at least one image from the LCOS chip passes to be viewed by a user" is routine in the art as is evident from the teaching of Svardal (See Figure 2).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Zavracky by including a reflective type display that includes "(a) a light source, (b) a lens through which light emitted from the light source passes, (c) a reflecting mirror for reflecting the emitted light passing through the lens, (d) a LCOS chip for producing the at least one image using the light from the reflecting mirror, and (e) a convex lens through which the at least one image from the LCOS chip passes to be viewed by a user."

The ordinary artisan would have been motivated to modify Zavracky in the manner described above for at least the purpose of making the display system smaller.

As noted in the Remarks section above, the combination of Zavaracky and Svardal do not disclose the newly added limitation of "a casing having an upper portion

with an undulating contour to define finger receiving positions and a plurality of buttons provided at the finger receiving positions for operation and support of the apparatus by one hand of the user." However, Von Novak teaches "a handheld electronic device comprising a housing around which a plurality of input keys is disposed," wherein "the input keys are placed around the housing at locations where fingers will naturally land when the handheld device is being held in an average size hand." Thus, it would have been obvious to one of ordinary skill in the art to modify Zavracky to include control buttons at the "finger ridges" shown in Figure 21F (ref.# 184) of Zavracky. The ordinary artisan would have been motivated to modify the Zavracky / Svardal combination "to reduce the space needed on a handheld device for input during user interaction with the device," as noted by Von Novak in column 1, lines 37-40.

3. Claims 11, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zavracky et al (US 6476784 B2), Svardal, et al. (US 6,547,396) and Von Novak (US 6,822,852) as applied to claims 1, 10 and 13 above, and further in view of Saito (US 2002/0025042 A1).

A further difference between the claimed invention and modified Zavracky is wherein the computer connecting port is a USB port or an IEEE 1394 port or wherein the wireless connection is bluetooth. Saito discloses a portable image viewer in which the computer connection is taught to either be a USB port or an IEEE 1394 port and that the wireless connection is bluetooth, paragraph 10 and 35. It would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that the

computer connecting port of Zavracky et al. could be either a USB or IEEE 1394 port and the wireless transmission could be bluetooth. Since these are the more common ports to connect peripheral devices to a computer today and bluetooth is an increasingly popular wireless communication one would provide these ports to allow for connection with a wide array of computers, see Saito, paragraph 35.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Barker (US 6,281,883) discloses an electronic device that teaches: "a casing having an upper portion with an undulating contour to define finger receiving positions and a plurality of buttons provided at the finger receiving positions for operation and support of the apparatus by one hand of the user."
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney E. Fuller whose telephone number is 571-272-2118. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rodney E Fuller  
Primary Examiner  
Art Unit 2851

November 17, 2005

